To: Foresman, Erin[Foresman.Erin@epa.gov]

From: Hagler, Tom

Sent: Wed 1/20/2016 5:54:30 PM

Subject: Re: Follow-up from Jared Brief on NRDC's Bay Delta 60-day notice

Why is the net delta outflow so much higher than the average net delta outflow? In a drought year, shouldn't that be lower than the average? What am I missing here?

From: Foresman, Erin

Sent: Wednesday, January 20, 2016 9:33 AM

To: Kemmerer, John; Hagler, Tom; Shepherdson, Melanie; Cabrera-Stagno, Valentina; Hashimoto, Janet;

Fleming, Terrence; Woo, Nancy; Gorke, Roger

Subject: Follow-up from Jared Brief on NRDC's Bay Delta 60-day notice

Hi Everyone,

I'm following up a reply to an action item that was assigned to me last week in the briefing for Jared about the NOI.

The action item is to find an estimate of the water volume that would have been used to meet water quality objectives designed to protect aquatic life beneficial uses but was not used for that purpose due to the TUCP orders. Nancy, is it your role now to communicate these numbers in response to Jared's request from last week's meeting?

Below are preliminary/rough numbers for 2015.

<u>DWR Estimates from February to November 2015 units in Thousand</u> <u>Acre Feet (TAF)</u>



DAYFLOW (TAF)

Water Needed to meet adopted water quality objectives	Delta Exports	Total CVP/SWP Deliveries	Net Delta Outflow	86-year Average Delta Outflow	10-year Average Delta outflow
909	1000	3614	3028	~1900	~ 1500

Some observations

- Note that DWR estimates do not include January and December
- Water needed to meet water quality objectives but not used for that purpose per TUCP orders is approximately equal to south of Delta exports
- More than 50% of available freshwater was diverted out of the estuary (compare Total CVP/SWP deliveries to Net Delta Outflow)
- 2015 net Delta outflow (minus Jan and Dec) was approximately 15-20% of the long-term and 10-year average, respectively
- Delta exports average around 5000 TAF, so 2015 Delta exports were also ~ 20% of longterm average

Erin Foresman

US EPA | Environmental Scientist | SF Bay Delta C/O NMFS 650 Capitol Mall| Sacramento, CA 95814 916-930-3722 www.epa.gov/sfbaydelta

Schedule: M 7:30a - 4:00p; T - F 7:30a - 2:00p

----Original Appointment----

From: Gaudario, Abigail

Sent: Monday, January 11, 2016 10:55 AM

To: Gaudario, Abigail; Blumenfeld, Jared; Quast, Sylvia; Strauss, Alexis; Kao, Jessica; Torres, Tomas;

Kemmerer, John; Hagler, Tom; Shepherdson, Melanie

Cc: Foresman, Erin; Cabrera-Stagno, Valentina; Hashimoto, Janet; Fleming, Terrence; Woo, Nancy

Subject: Brief on NRDC's Bay Delta 60-day notice

When: Tuesday, January 12, 2016 2:00 PM-2:45 PM (UTC-08:00) Pacific Time (US & Canada).

Where: R9SF-VTCRoom-19310-40-Havasupai